

## ABSTRACT OF THE DISCLOSURE

The invention relates to a process for the improvement of spermatozoa fertilization activity, in particular for the increase of spermatozoa motility by inhibiting the enzyme phosphatidylinositol-3 kinase (PI3K). The invention further relates to uses and methods of P13K inhibitors in infertility and assisted reproduction techniques (ART) as well as to a medium for storage and/or transportation of spermatozoa comprising P13K inhibitors. The P13K inhibitors are selected from the group consisting of 2-(4-morpholinyl)-8-phenyl-4H-1-benzopyran-4-one (LY294002), wortmannin, quercetin, and derivatives and analogues thereof.

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